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In this issue

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JUNE 1961

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Fitness in the schools

THE President's Council on Youth Fitness has just published a booklet entitled *Youth Physical Fitness—Elements of a School-Centered Program.* It presents some ideas which the Council believes are a sound approach to the improvement of physical fitness in school children, and which it hopes the schools will find helpful as they consider them in terms of their own local situations. Among the suggestions is a list of 8 basic steps the school administrator might follow in setting up a program:

1. Check pupils for minimum levels of strength, agility, and flexibility through three simple tests.

2. Arrange for all pupils to engage in developmental exercises and activities for at least 15 minutes during the daily physical education period

3. Test the physically underdeveloped every 6 weeks until they reach the minimum level.

4. Use a comprehensive validated test as part of the physical education program.

5. Use the test score for diagnosis and for motivating better performances.

6. Obtain test scores a minimum of twice yearly for the purpose of evaluation.

7. While making sure that the six steps above are successfully under way, establish a plan whereby the program of health education and physical education can be continually improved and made more comprehensive.

8. Appoint a qualified staff member to work with and through the school principals in providing leadership, supervision, and coordination for the school program and in coordinating the school's work with that of the community agencies.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE • ABRAHAM A. RIBICOFF, *Secretary*

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Brief. . . . . EDUCATION AND GOVERNMENT Reports . . . . . .

Peace Corps conference

Representatives of foundations, private agencies, the Peace Corps, and the Office of Education discussed problems of language and area training for Peace Corps volunteers at the University of Michigan on May 1–2. A contract under title VI, National Defense Education Act, made the meeting possible.

Lawrence Dennis, director of the Peace Corps' Training Division, spoke on Peace Corps training requirements. Participants discussed training sources, what could be achieved in programs of various lengths, and ways of organizing training.

Higher Education, the Office of Education's other journal, carries in its July issue an article by Dr. Dennis on Peace Corps training.

Teaching materials, social work

Three agencies in the Department of Health, Education, and Welfare—the Children's Bureau, the National Institute of Mental Health, and the Public Assistance Bureau—will participate this year in a pilot project to test and evaluate teaching materials for use in training social workers. The project, which will take the form of an exchange pool, is under the auspices of the Committee on Teaching Materials, of the Council on Social Work Education, a nonprofit organization which works to improve standards for professional education in social work.

Members of the pool will be faculty members of selected schools of social work and members of training staffs in selected social agencies. The schools and agencies will submit teaching materials of various kinds which the members of the pool will test in actual teaching situations. At the close of the semester or academic year, each member of the pool will report to the Teaching Materials Committee on his experience with the materials and express his judgment of them.

Summer guidance institutes

Only those high school counselors who have already had a substantial amount of training for their jobs will be admitted to the summer institutes held under the National Defense Education Act in 1962. This stipulation represents a shift in emphasis under the NDEA counselor-training program: in the first 3 years the summer institutes were attended by counselors with a variety of preparation. The plan for 1962 is to use the summer institutes for advanced training only and to emphasize the regular session institutes for counselors who have had only little training and for high school teachers in the early stages of preparing to be counselors.

The 1962 summer institutes will be for counselors who have completed the equal of one semester of graduate counselor preparation, for counselors rounding out the first academic year of graduate work, and for counselors who have already completed 30 semester hours or more of graduate work but need refresher training.

American Education Week

Though the 41st annual celebration of American Education Week is nearly half a year away—November 5–11, 1961—the four sponsors are busy preparing for it. They have chosen an overall theme and daily topics.

The theme for 1961 is "Your Schools: Time for a Progress Report." Daily topics are these:

Time to Test Our Convictions
Time to Decide on Essentials
Time to Work Together
Time to Explore New Ideas
Time to Salute Good Teachers
Time to Pay the Price for Excellence
Time to Look Outside Our Borders

The sponsors—the American Legion, the National Congress of Parents and Teachers, the National Education Association, and the Office of Education—are also preparing publications and materials for the celebration. The Office has three publications ready so far: *How Strong Is Your School?* (OE–20021–61), *Science as a Way of Life* (OE–29023), and *The Elementary School—a Composite Picture* (OE–20025). The first two are for sale

by the Superintendent of Documents, Government Printing Office, Washington 25, D.C., for 10 cents and 15 cents respectively. The third is a reprint from *School Life* and is free from the Publications Inquiry Unit of the Office.

NSF Fellowships

The National Science Foundation will award 150 senior postdoctoral and 400 science faculty fellowships for academic year 1962–63 for study in mathematical, physical, medical, biological, and engineering sciences; anthropology; geography; psychology; sociology; economics; history and philosophy of science; and certain interdisciplinary science fields. Fellows will study or do research in any nonprofit institution at home or abroad.

Postdoctoral fellowships are open to U.S. citizens who have held doctoral degrees or their equivalent for at least 5 years, and who have aptitude for advanced training.

Science faculty fellowships are open to U.S. citizens with baccalaureate degrees, ability in science teaching, at least 3 years of experience in full-time teaching in college, and intention to continue teaching.

Stipends will match the salary of the applicants at time of application to a maximum of $15,000. There will be a limited allowance for travel and dependents.

The closing date for application is October 9, 1961. Application material is available from the Fellowships Section, Division of Scientific Personnel and Education, National Science Foundation, Washington 25, D.C.

Schools for new media

A manual to help school officials and architects plan school buildings for the new media has just been published. It is the result of a research project conducted by Portland (Oreg.) State College with Federal funds provided under the National Defense Education Act (title VII–B).

An abundance of photographs, drawings, and charts helps the 72-page "Planning Schools for New Media" present principles and criteria for planning instructional material centers, classrooms, language laboratories, auditoriums and multipurpose rooms, intercommunication systems, and facilities for radio and television. Copies are available for $1 each (to cover the cost of handling and mailing) from the Division of Education, Portland State College, Portland, Oreg.

Biology lectures

Five lectures on biology are now being published by the Graduate School of the U.S. Department of Agriculture, under the provocative title *Promise of the Life Sciences.*

The lectures were originally presented last fall at the Graduate School, as a series: Biological transformation of energy, by A. Szent-Gyorgyi, Woods Hole Marine Biological Laboratory; genetics, by George Beadle, California Institute of Technology; nutrition, the chemistry of life, by Jean Mayer, School of Public Health, Harvard University; fine structure and pattern of living things, by Paul Weiss, Rockefeller Institute; and the organism and the environment, by Arthur D. Hasler, University of Wisconsin.

In addition to being printed, the lectures are being recorded on film and video tape and will be made available in those forms also for both educational television stations and educational institutions. The recording, which is financed by a grant from the National Science Foundation, is being done by the Television Division of the Walter Reed Army Medical Center.

For further information on how to get book, film, or tape, write to the Graduate School, U.S. Department of Agriculture, Washington 25, D.C.

HEW trends

The 1961 edition of *Health, Education, and Welfare Trends,* just off the press, is bigger and better than the 1960 edition. Its charts and tables give national statistics on more than 100 subjects pertaining to the health, education, and welfare of the people of the United States. Everything seems to be here—from life expectancy to magazine prices, from teachers' salaries to Federal grants-in-aid, from vocational rehabilitation to credit unions, from women in the labor force to juvenile court cases, from surgeon's fees to consumer prices. New this year are the figures on deaths from heart diseases and cancer, on civilian hospitals and nursing homes, on earned degrees by field, on libraries and books, on unemployment insurance, and on Government indebtedness. Also new is a whole section of recent data by States—28 tabulations in all. Data in the book have come from many agencies and organizations, public and private.

Trends is published by the Department of Health, Education, and Welfare as a long-look supplement to its monthly *Indicators,* which gives only current statistics though it does indicate relationships among various circumstances and identifies and explains new developments. *Trends* takes a historical point of view: it gives data for decades past and, on many subjects, makes projections for years to come, up to the 1970's.

Both *Trends* and *Indicators* are for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.—the first for $1.50 a copy, the second for $3.50 a year.

NANCY E. WOOD

Language disorders: Major barriers to communication

THERE are children in our school systems today who are capable of learning to read—but don't read; should be able to write—but don't write; are able to speak—but can't communicate. Many of these children have language disorders. Parents often describe these children as "forgetful," "lazy," "stubborn"; teachers call them "daydreamers," "inconsistent," "insecure." Psychologists are concerned about them because they do not function at their potential level; school administrators are concerned because ultimately they must decide what provision shall be made for them.

It is always sad to see a child who cannot learn, but it is shocking to see a child capable of learning who is being denied opportunity simply because the school does not provide the educational program he needs. So it is for the child with a language disorder—he seems to be almost completely forgotten in our educational planning for children with special problems. Perhaps we are not doing enough for children who are deaf, blind, mentally retarded, or orthopedically handicapped, but at least we have recognized their needs and are providing some programs to meet them. The child with a language disorder, however, appears to stand alone, troubled by a communication problem which is unprovided for in our schools and which remains unrecognized, misdiagnosed, or misunderstood. As we work to develop specific educational procedures for this child, we must first reduce the complexity of his problems; and before we do that, we must understand what his problems are.

Before Dr. Wood joined the Office staff as specialist on speech and hearing disorders, Section on Exceptional Children and Youth, she was associate professor of speech and language pathology at Western Reserve University, and the principal investigator for a 4-year study of children with language disorders supported by Office funds through the Cooperative Research Branch. She has written monographs and books on the subject of language disorders in children and numerous articles for professional journals.

Language disorders

Speaking, reading, and writing are all avenues of communication. Basically, speech involves the articulation of words; reading, the identification of written symbols; writing, the visual-motor reproduction of written symbols. Language is basic to communication through any of these avenues. Language disorders, therefore, are essentially an inability to receive or express symbols and are often broken down into three major education types—*aphasia*, *alexia*, and *agraphia*, or, if the problem is partial rather than total, into *dysphasia*, *dyslexia*, and *dysgraphia*.

In *aphasia* or *dysphasia* the prime symptom is the inability or limited ability to receive or produce the spoken word. The problem, however, is not one of speech production alone; behind it is the child's basic inability to perceive stimuli or classify symbols. For example, the young child with aphasia may not understand the word "book" chiefly because he is not able to associate the name, or the symbol, with the actual object. Since he cannot use the word, he cannot express himself.

Most discussions of aphasia in children are limited to the very young child who has not learned to speak, but the term could have a broader meaning inasmuch as many children with aphasia do learn speech patterns and some learn to talk fluently. Even so, their speech is often randomized, consisting of severe word-finding problems or circumlocutions. For example, a child may not be able to use the word "bookcase" when he wants to and may resort to the circumlocution, "the place where books are kept." Such speech is confusing to the listener and embarrassing to the user. Most of us occasionally have difficulties of this type, but when the problem becomes consistent it requires professional attention.

Children with word-finding problems are attending our schools today in what are thought to be large numbers. In general, however, their problems either have not been detected or have not been accurately analyzed. Obviously those which have been erroneously diagnosed as symptoms of mental retardation, deafness, or emotional disturbance are not receiving the right kind of treatment. For all these children the schools must make time and help available. The speech therapist must concern himself not only with speech production or *how the child articulates*

a word but also with language problems which prevent a child from selecting the correct word out of many.

Alexia or *dyslexia* is the inability or limited ability to receive, understand, or associate written words with an object or an experience. A child with alexia has a reading difficulty. He may reverse entire words: he may read *saw* for *was*, *ton* for *not*, *won* for *now*. He may omit the initial or final sounds or both; and when he omits the final sounds he causes confusion of both tense and meaning. Since alexia is a problem of silent reading, the child may be able to read a passage aloud but be unable to answer questions on what he has read, just as he may be unable to tell what he has read silently. The problem in alexia is primarily one of memory or recall.

Agraphia or *dysgraphia* is the inability or limited ability to associate written words expressively with an object or an experience. This is a writing disorder. Children with agraphia may be able to write letters but may not be able to identify the individual letters after they have written them. Usually these children have severe problems with spelling. Alexia and agraphia are interassociated since both are concerned with written symbols; both are severe handicaps, for children must learn to read before they can learn to write.

No language disorder should ever be considered simple or uncomplicated. Whether the disorder is one of speech, reading, or writing, we must look beyond the overt symptoms of the problem and find the causal factors: *these*, not the symptoms, are of major importance in both the diagnosis of the disorder and the selection of educational procedures. A language disorder may be present in addition to another problem such as mental retardation, hearing loss, or emotional disturbance. The fact that such multiple problems can and do exist explains why the school must give the child with a language disorder a broad based educational orientation so that the educational procedures selected for him are not restricted to isolated aspects of communication; it also explains why each child's language disorder must be carefully and individually studied so that it can be delineated in terms of type or degree.

Every child with a language disorder needs special educational procedures, all basically aimed at helping him organize the stimuli he receives so that he can develop useful concepts. Drill and rote procedures will not serve his purpose. It is not the production of words, nor the rote recognition of them, nor the memorization of arithmetic principles that is of major importance. Rather it is comprehension of meaning that is important if these symbols are to become useful to him in communicating with others.

Behavioral clues

Diagnosis of language disorders in school-age children is a complex, intricate, and time-consuming process that requires the integrated attention of specialists from many disciplines. The classroom teacher should learn to recognize certain behavior patterns so that she can promptly refer for thorough examination any child she suspects of having a language disorder. Some of these behavioral clues can be observed in the classroom:

1. Does the child have unusual difficulty in using symbols for communication? Even though he performs adequately on performance tests, does he seem to find difficult, if not impossible, any task that is verbal, that requires reading or involves number concepts?

2. Does he assume an unusual posture when he writes or reads? Reverse or invert letters or words? Have word-finding problems, resort to circumlocutions? Demonstrate general confusion or lack of clarity in writing?

3. Does he seem unable to attend to sound even though he evidently can hear? Have difficulty in retaining information? Have problems in spatial orientation, so that he confuses *left* with *right*, *up* with *down*, *under* with *above?* Confusions like this explain why some children do not comply with school rules: they are not incorrigible; they simply do not understand the meaning of the regulations.

4. Is he unable to relate what he has read, even though he has read it aloud correctly? In writing from dictation, does he have severe problems, make numerous spelling errors? Does he seem unable to repeat digit spans, so that arithmetic errors are the rule rather than the exception?

5. Does he spend much time in daydreaming? Children with language disorders are likely to seem lazy, not because they are so but because they are truly "out of focus" in a school setting.

6. Does he perform poorly on timed tests? Children with language disorders tend to feel defeated even before they begin these tests and to "give up" before they finish.

7. Even though he "talks" fluently, does he fail to communicate? Many of these children seem to feel a forced responsiveness to talk, as if they were compelled to control the situation and to fill every void in the conversation with verbalization so that they will not have to respond to talk from others.

8. Does he show signs of any other disorder? Teachers should remember that a child with a language disorder may also have a hearing loss, an emotional disturbance, or mental retardation. It is often the language disorder that complicates the problem to such a degree that the

THOMAS E. COTNER

What they say about us

Every year hundreds of teachers, school administrators, and other educators from abroad return to their homes after a period of study or teaching in the United States. They carry with them the impressions they have formed, the conclusions they have reached; and we in the United States, watching them go, can only hope that the impressions are good and the conclusions favorable, for they have the power to shape, at least in parts of the world, the image of our country and our people and to affect the educational systems of others.

Favorable or not, these impressions also can help us see our own educational practices through others' eyes, can give us the wholesome shock of objectivity. The article which follows, based on a speech to the American Overseas Educators' Organization, unfolds a representative sample of visitors' impressions—all of them gained under one of the three international programs administered by the Office of Education *(see box, p. 11)*.

"WHENEVER I FEEL tempted to criticize harshly the American system of education," a British exchange teacher says in summarizing his feelings about our schools, "I think of the teachers and the dozens of other people I have met and ask myself what can possibly be wrong with an educational system that produces adults like these?"

This visitor is one of the many who each year come to the United States to teach or study under one of three programs administered by the Department of State with the cooperation of the Office of Education: The teacher exchange program, the international teacher development program, and the training program of the International Cooperation Administration. In the course of their experiences here, these visitors form many opinions about our schools, our way of life. Their comments run from high praise, such as the one I have just repeated, to severe criticism. They react favorably to our efforts to practice the democratic principles we profess, our interest in public welfare, our productive power, religious interests, and

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child is unable to operate at his maximum potential; such multiple problems confuse educational recommendations.

Many persons—both educators and laymen—do not realize that many intelligent children have language disorders for which they are receiving no help. Yet these are problems that keep at least some children out of school and cause many of those in school to fail. Without special programs the school cannot do the job necessary. When one of these children is placed in a regular classroom, the teacher, who has not been trained to deal with his problem, is frustrated and confused; and the child's parents are irritated because the school is not providing for his education. What is even worse, the child does not have a fair chance for an education.

Numerous speech clinics throughout the country now offer special diagnostic services for these children, but they cannot begin to provide the necessary educational services for all children with language disorders. Speech clinicians—no matter how cooperative, dedicated, interested, or skillful they are—cannot provide these services alone. Insufficient time and inadequate equipment are two factors that prevent it. Yet it is the responsibility of both educators and specialists to see that adequate educational services for these children are provided by public school systems.

We can provide the necessary programs, but first we must plan carefully. As a first step, all of us—specialists, school authorities, and classroom teachers—must become increasingly aware of children with possible language disorders. As we come to realize that a child with impaired ability to communicate has a problem in education and social development he cannot solve alone, we will move ahead to provide for him. If more information on the subject is needed, let us see that the research is undertaken; if more time should be devoted to the development of speech and language, let us see that time is made available; if special classes are needed, let us see that they are planned and offered. Admittedly we will find obstacles in our way, but with some effective planning, interest, knowledge, and public support we can move ahead. The effort should prove both productive and rewarding.

high standards of living. They react just as unfavorably to racial discrimination, waste of materials and food, permissiveness with children in school and at home, and the fast tempo of life that allows little time for meditation.

The comments I have gathered here, many from reports to the Office of Education, are not generalizations. Each is on its own as an example of "What they say about us."

General comments

An inspector of schools from New Zealand, who came to the United States in the midst of the great debate on education, thought the criticism unduly harsh. In his report to the Office he writes:

"I came a trifle smug about what my country has achieved . . . but I leave conscious of many ways in which your schools are superior. But the picture of education you present to the world is misleading; I think of some of the issues on which you are assailed—discipline and the general behavior of boys and girls, the quality of instruction, and the application of pupils to the serious business of learning. Every time I spoke to a lay group . . . I made it a point to say something on the fine education I was seeing here—not only the overall guiding ideals, but the manner in which local schools interpret and practice them."

A German teacher writes, "It has been highly instructive . . . to watch American education in action so closely. . . . The most striking fact to me is the general interest of the American citizens in questions of school administration and curriculum. The whole nation seems to be concerned. . . ."

A Dutch teacher finds that the American high school student can express himself orally better than the Dutch student, that he is less self-conscious, has greater self-assurance. He attributes the American student's superiority to the fact that he has more classes in English than the Dutch student has in *his* language, to the stress schools put on public speaking, and to the encouragement teachers give students to express themselves. But the most important reason, he believes, is that "the student is a member of the most democratic nation in the world. In the Netherlands, the secondary school diploma . . . often has social implications. . . . An American high school student does not carry this burden. He learns and lives in a system which is child-centered. He enjoys life much more than his Dutch counterpart."

Most foreign teachers think that American teachers, by and large, are well trained and work hard, but that they should have more prestige and status and should have less paper work and fewer extracurricular duties. French and Belgian teachers, for instance, who teach about 15 hours a week, think our teachers carry too heavy a teaching load and that they should be required to teach only one subject, not two or three.

DR. COTNER is director of the Educational Exchange and Training Branch, in the Office of Education's Division of International Education. Under his administration are the three sections through which pass all of the school administrators, teachers, and trainees who come to this country under the three international educational programs administered for the Department of State by the Office of Education.

Our decentralized education is confusing to teachers from countries with centralized systems of education. Yet, when they understand it, many find it praiseworthy. An education officer from Zanzibar observes, "It is perhaps through . . . decentralization and a concentration on the needs of the locality that the American system produces individuals, very conscious of their rights and obligations, and not robots."

An Italian school principal says, "The American school appears powerfully alive, for it is being stimulated and supported by a very watchful public. American schools deserve praise for having solved brilliantly the problem of education for everybody."

A teacher from North Ireland finds things to emulate: "British schools have a lot to learn from the American way of life and from the philosophy of American educators [that the main object is] to develop a fuller personality, not just a human textbook."

A headmaster from Barbados judges U.S. schools by some of their products: "At certain levels there is an upward trend in the English system over the American, but in an overall view I fail to see the inferiority. . . . Look at the engineering and architectural ability . . . shown so convincingly in massive bridges, buildings, and turnpikes. Surely this standard could not be achieved through an inferior system of education. Your leading scientists, doctors, educators, hospitals, and universities are equal to their English counterparts. . . . Your educational standards vary from State to State, but as a nation you can take an honored place among the world's best in any field."

An assistant principal from Pakistan reports that she has been most impressed by our "research approach to problem solving in education and the self study and enterprise on the part of students which build confidence and self-reliance."

A German teacher says, "The German educational system is a vertical system. . . . Once a student has decided to attend one particular type of school, he is 'pinned down' and there is no switching possible. This important decision has to be made early, too early. The American system . . . is . . . more flexible. It takes into consideration that many youngsters develop rather late."

Herbert F. Collins, director of the British Interchange Committee, says this:

"The most uncompromising critics of American education have to admit that its product, the American student, stands endowed with an almost divine curiosity. He emerges from his school as a vital personality, full of zest for life, not overstuffed with facts and academic minutiae yet sufficiently grounded in relevant knowledge. As a result, he is able to look at the world with rather more serenity than some of his fellows elsewhere and to ask the why and the wherefore of life's daily problems. It is the acquisition of this curiosity that gives a particular value to American education. A pupil prepared to question intelligently and to weigh the answers he receives is well equipped to extend the boundaries of his knowledge.

"Some critics . . . have been shrill about the need to imitate or even to superimpose . . . the philosophy, the methods, and the curriculum content of other nations' programs. In the final issue, American education must be governed by the needs of American life. British, French, and German systems have . . . been designed to meet . . . national requirements. . . . The American high school is definitely an American creation. It differs from the English grammar school, the French lycee, and the German gymnasium. Such institutions could no doubt provide experiences that might prove of value . . . but any influence they might exert must be absorbed within the American pattern and not stuck on like spangles on a fancy dress. It might be possible to lengthen some . . . high school courses. Science, mathematics, and modern languages might be accorded 4-year programs . . . and more intellectually homogeneous composition of classes might be possible. But the high school must inevitably remain the product that has so well served the U.S.A."

Pupil-teacher relations

A recent study made by a member of the British Parliament reveals that British exchange teachers in comparing their schools with those in the United States consider pupil-teacher relations in the U.S. schools as "much more informal and relaxed," "friendlier," "freer." About 90 percent like the close pupil-teacher relations. They "enjoy the spontaneity," feel "close to their classes," and find "less respect but more friendliness." They feel that American students like their teachers and that teachers are confidants and advisers as well as instructors. The 10 percent who do not favor the less rigid atmosphere think that it creates discipline problems and, in some cases, lack of respect. One teacher says that a happy relationship exists in her school, but that it is at times "so free as to be almost impudent by our standards." Another says that he has had companionship and fun "without losing face at all."

Ability and grouping

Although most teachers applaud our efforts to help the slow learner, the mentally and physically handicapped, they are greatly concerned over whether we are educating the gifted to their fullest capacity. About 80 percent of the British exchange teachers say that English schools demand more than American schools. They think that we pay too much attention to the average student and not enough to the gifted. One teacher observes that the British system of streaming has advantages for both the gifted and the slow student. She thinks, though, that our schools are becoming aware of this and that some streaming is taking place.

Many European teachers think their students are ahead of our by 1 or 2 years. They say that students in their countries write better because they write more often, but they concede that our children have more poise, general knowledge, and ability to express themselves orally. As to general ability and intelligence, they agree that all students are about the same, given the same training and advantages. No country or countries have a monopoly on intelligence.

Conduct and discipline

Some teachers, because of adverse newspaper stories and the film, "Blackboard Jungle," have approached their assignments in this country with misgivings, only to find no schools or students like those they had read about or seen on the screen. Some, however, are critical of school discipline in this country. One British teacher writes, "I feel that the educators in America could accept higher standards of self-discipline from their students. Unfortunately, social pressure upon teachers from parents is often too severe to allow a student to be criticized or reprimanded for misdemeanors. This, I believe, is wrong. Correction of bad behavior early in life prevents delinquency later."

An Australian teacher thinks that the boys and girls he has taught are well behaved and that more should be said about the 98 or 99 percent who are well-mannered, good students. "Unfortunately, your newspapers play up incidents of juvenile delinquency and . . . foreign news-

papers reprint these stories to the detriment of foreign opinion about American youth."

Another Australian concedes that our extracurricular activities appeal to varied interests, build school spirit, and affect discipline, but he is dubious about the worth of such activities as the basketball tournament taking 4 nights during the week, though he thinks such an activity adds to the school's holding power and helps to keep students out of mischief.

A teacher from Finland finds the discipline in our schools mostly good. He says that as he walks in corridors he does not hear any noise though classroom doors are open. He finds students polite and friendly. An Australian school administrator reports that the thousands of students he has seen "in classrooms, in corridors, in cafeterias, and auditoriums were courteous and orderly and appeared to be normal, healthy teenagers."

Citizenship education

Almost all visiting educators are favorably impressed with our civics and citizenship classes.

In 1955 a team of educators from the French ministry of education, after studying our methods, experiences, and textbooks, returned home to recommend citizenship teaching in their own schools. A German teacher-trainee observes that "education for citizenship is much better in the United States than in Germany. In this particular field we can learn a lot from the Americans."

The ability of the American student to discuss important questions with reason and logic, to organize group activities, and to conduct meetings following parliamentary procedure has amazed many visitors.

A New Zealander observes that "teachers do not assume that children know what citizenship means, but from kindergarten on teach and practice it. Students learn American ideals and democratic living in the classroom. . . . Good citizenship implies a faith in and loyalty to American ideals and institutions, and schools have taught these to an impressive degree. The average American boy knows much more about the history of his State and Nation than his New Zealand counterpart, and his emotional attachments are equally intense and sincere."

Textbooks and subjects

Teachers from all over the world are delighted with the content and format of our textbooks, particularly with our well-illustrated books for elementary school children. More than 80 percent of the British exchange teachers here in 1958–59 found the quantity greater and the quality usually higher than in British schools.

The teachers are often impressed by our devices for developing reading skills, measuring reading rates, and increasing reading speed. They admire our school libraries and audiovisual aids. Bookmobiles particularly interest those from countries where roads permit access to rural areas.

Foreign language teachers are at the same time disappointed and pleased by what they see of foreign language teaching. They are disappointed to find a lack of emphasis on speaking ability and to learn that students often take a language for only 1 or 2 years. They are pleased at the new stress on foreign language teaching (partly stimulated by the National Defense Education Act) and the use of new teaching devices, such as the language laboratory. Most of the teachers believe that a thorough knowledge of one language is preferable to a smattering of several languages.

When the Deputy Minister of Education of the Soviet Union, a mathematician, visited our schools about 2 years ago he was asked what he thought of the mathematics teaching he saw. He replied, "It is well done by competent teachers, but it moves at a slow pace, like a slow-motion movie. At the secondary level we go much farther in this field than you do." Other mathematics teachers, however, are impressed with the new methods we are using to teach mathematics; and many have come to the United States for training in this field.

Many teachers, social science teachers among them, are concerned over our lack of knowledge of other countries. They find that many Americans do not know where Ceylon, Guatemala, Zanzibar, and Viet Nam are, know nothing of their cultural backgrounds and histories. They are concerned that some States do not require the high school student to take world history and that geography is rarely taught at the secondary level. (Most secondary schools in Europe and Latin America require 2 to 3 years of geography and world history is a must). "In view of the United States' position of world leadership," the teachers say, "you must make these subjects required if your citizens are to be knowledgeable about world affairs."

Most European teachers think we should do more about gymnastics in our physical education classes. They also favor more intramural sports and less varsity competition.

An educator from Southern Rhodesia says, "I have observed a tremendous variance in the practical application of sound and generally accepted principles of physical education, from the disinterested and unduly casual to the narrowly specialist, professional approach of the school coach who appears to occupy . . . a privileged place in the staff hierarchy. Sport has become big business . . . and many schools reflect the insidious evils of such a system."

On the other hand, Ceylon's supervisor of physical education, trainer for his country's Olympic track team, likes our training programs and varsity competition, espe-

cially in track and field. He is convinced that U.S. success in track springs from the keen sense of competition beginning even in the elementary school.

In arts and crafts, the teachers are impressed with the elementary and secondary school programs, the great variety of materials and activities, and the amazing things done at low cost. Many teachers are interested in learning from us how to make inexpensive teaching aids for teaching arithmetic, science, and other subjects using native materials.

School administration

One school administrator from New Zealand says that he envies the interest in and support of schools shown by American parents, civic groups, and businessmen. He feels, however, that too much pressure is sometimes brought to bear on a principal or superintendent by citizens or even by school boards on academic problems which should be left to him and other trained educators for solution. He thinks that this type of pressure often makes local politicians of school administrators, rather than practicing, professional educators.

The people of the United States

No matter what they like or do not like about our schools, the visiting teachers and students claim one impression in common—an impression of "the remarkable friendliness and warm hospitality of the American people." Although many of them heard before leaving home that the United States is a friendly country, the personal interest and kindness they have met have far exceeded their expectations and have done much to make their exchange year or training period a memorable experience.

A woman from Finland remembers the American smile: "I think smiling is a characteristic sign of American life. . . . Everyone, especially in small cities, smiles to everybody else, us foreigners included. Thank you, Americans, for this smiling." A man from Ceylon apparently speaks for a great many when he says, "I traveled eight to ten thousand miles from coast to coast and North to South, and I did not come across a single instance of indifference, rudeness, or lack of understanding. I am truly sorry that Americans are so widely misunderstood in some parts of the world."

The Office of Education is pleased to hear of this interest and kindness expressed by the people of the United States. It appreciates the support and assistance from educational and civic organizations, school systems, and individual citizens in making these programs for foreign teachers and school administrators so successful. Certainly there is much that educators, students, and other citizens can and are doing to strengthen the programs.

Three International Education Programs

The Department of State and the Office of Education, in cooperation, administer these three international educational programs:

***Teacher exchange program.*—U.S. teachers exchange teaching assignments with teachers in another country, go abroad on one-way assignments for 1 year, or attend seminars overseas in history or languages, and U.S. school administrators attend seminars overseas in comparative education. This past year (1960–61) about 200 foreign teachers from 15 countries, have come to the United States to teach in our schools and 425 U.S. teachers have gone abroad to teach or attend seminars.**

***Teacher development program.*—Teachers and school administrators from other countries come to the United States to study elementary, secondary, and vocational education, American civilization, English as a second language, school administration, and other specialized fields. Their programs include intensive seminars and regular courses at colleges and universities, observation of schools, visits to State departments of education, colleges and universities, and historic and cultural sites, and participation in school and community activities. This past year 529 teachers, supervisors, and administrators from 67 countries took part.**

***Technical assistance program.*—Participants work for degrees or receive specific or practical training in a wide variety of educational fields, particularly in technical and vocational education. Some of the trainees are beginning teachers; others, officials of ministries of education. This past year the Office arranged programs for about 800 educators from 50 countries. These projects are in cooperation with the International Cooperation Administration, Department of State.**

The list of suggestions that follows may be helpful to those who would like to have the pleasure of meeting some of these visiting educators and participating to some extent in their programs:

1. Encourage well-qualified U.S. teachers to apply for exchange teaching positions or overseas summer seminars.
2. Serve personally as hosts for exchange teachers or trainees from other lands, inviting them into homes or taking them sightseeing.
3. Invite foreign teachers and school administrators to civic or church meetings to speak about their countries and educational systems; invite them to attend national and State conferences of educational organizations.
4. Provide community hospitality, and invite them to participate in community activities of various types.
5. Assist with the orientation of the visitors to American education and life when they arrive in a community.

The Educational Exchange and Training Branch of the Office of Education will gladly furnish the names of teachers and the places to which they are assigned.

PAUL E. BLACKWOOD

Conference of large-city elementary school supervisors

On April 11–15 the Elementary Schools Section of the Office of Education, held for the 5th year, a conference for supervisors of elementary education in large cities. During these 5 days 75 representatives of 64 cities in 35 States, together with representatives of several large educational organizations and specialists of the Elementary Schools Section, discussed the major problems elementary schools in large cities are facing. This article is a report of the findings of the conference.

LIKE A RECURRING THEME in a symphony, one idea kept coming up in this year's conference of big city supervisors of elementary schools—the idea of change. The changes of our times, the supervisors said, bring the elementary school both new solutions to old problems and new problems for which the old solutions are useless. In the unprecedented rate at which knowledge is changing and, particularly, in the changing *quality* of knowledge, they saw the need for changes in the curriculum, for revision of the established ideas of what children should study and when they should study it.

Take science, for example, they said. "Scientific knowledge" no longer means "permanent knowledge." Old facts, old ideas are not valid unless they fit into new concepts; and the old knowledge is continuously being replaced by more comprehensive, more nearly complete, or more discriminating knowledge. This continuous revision of knowledge carries much meaning for science education. It means, for instance, the supervisors said, that the mere possession of a body of scientific knowledge is no longer enough to qualify a person as a good teacher of science, that old methods of instruction may be inadequate or inappropriate, that the old idea of science teaching as the covering of a specific body of knowledge must be questioned.

Changes call for closer cooperation between scientists and educators in improving the science curriculum. Fortunately, scientists are willing to help, and with their help schools can improve children's experiences in science.

The supervisors believe that change is affecting the role of the elementary school administrator, that his image is changing to include a recognition of his increased responsibilities as an informed, articulate member of a closely knit and organized profession. The recognition of the professional aspects of the administrator's job has led to the identification of some of the qualifications he should have. The supervisors cited these:

> Communication skills.
>
> Knowledge of human relations and the best ways to make decisions.
>
> Understanding of the community's role in education.
>
> Knowledge of how to reorganize a school for better administration and for better instruction.
>
> Awareness of the necessity for balance and perspective in reorganizing a school, the need for continuing research to support changes, the importance and place of organizational structure in relation to the instructional program, and the continuing need for careful definition and clarification of the special and unique purposes and tasks of the elementary school.

The supervisors believe that changes of all kinds confront every teacher. The world, with its increasing uncertainties, calls for teachers with great understanding of children and their problems. Teachers must be ready to use changes in the lives of children to educational advantage. For example, watching television is an experience most children bring to school with them. A recent report indicates that the typical child spends one-sixth of his waking hours watching television; 95 percent of all children of school age watch commercial television occasionally; 90 percent, regularly. In contrast, only about 20 percent in grades 1–4 watch educational television; 30 percent never watch it.[1] These findings, the supervisors said, call the attention of educators to the need for capitalizing on children's television habits.

On curriculum improvement

The supervisors indicated that one of their major interests is in improving the elementary school curriculum, particularly in reading, understanding democracy, foreign language teaching, the "new arithmetic," and the kindergarten.

Reading.—The supervisors spent most of the session on the teaching of reading in discussing the pros and

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[1] Wilbur Schramm. Television in the Life of the Child—Implications for the School. *New Teaching Aids for the American Classroom*, pp. 50–70. Stanford University, The Institute for Communication Research, 1960.

cons of the individualized method. In general, however, they agreed on these points:

Because of the complexity of the individualized method, teachers should be aware of the many factors involved in developing a program. They should know that individualized reading is defined in several ways, and that an extensive study of the method before adopting it would be helpful.

A good program involves many different kinds of books, many levels of reading ability, grouping for the teaching of specific skills, and regrouping. An individualized reading program does not preclude groupings in a classroom for teaching reading skills. A basic program supplemented by an individualized program is perhaps more advantageous than either by itself.

Teaching machines for reading are usually suitable for clinical rather than universal classroom use.

Since rapid reading with comprehension is a skill much needed today because there is so much to read, the school must teach accelerated reading. But the teaching of reading must *also* include the teaching of fundamental research skills. The teacher can begin with an explanation of the use of a table of contents and have the class make one. Gradually he can advance to more complex skills such as locating materials.

Understanding democracy.—The supervisors believe that a major obligation of the schools is to interest the child in the welfare of his country. One purpose of the social studies, they said, is to help children growing up in a democracy to understand and be able to explain what democracy means, and they suggested that the school help the child gain better understanding of democracy by teaching him the relation of our democracy to ethics, and by presenting him with opportunities to live democratically and to study systematically the tenets of democracy, such as respect for the rights of the individual.

Foreign languages.—The supervisors believe that, since so many elementary-school children are studying a foreign language (over 1 million in 1959), a careful look at what foreign language study is to accomplish and the methods to use is in order. They suggested a few guidelines:

The child should learn a foreign language in the same way he learns his own—by comprehension and speech, first; by writing and reading later.

Elementary schools should not offer a foreign language unless the pupil is likely to have the opportunity to continue studying it long enough to learn it thoroughly.

Students need to spend enough time in one language to know what it is to learn a language thoroughly; once they know one language well, they may be able to master another more readily.

The "new arithmetic."—In answering the question "What is new about the 'new arithmetic'?" the supervisors said that, first, it means recognizing and teaching mathematics as the structural system that it is, and, second, teaching for understanding of the number system instead of teaching simply "how to do particular processes." They believe that through understanding children can deduce alternative ways of solving problems. Mathematics curriculum materials are being prepared that will emphasize these aspects of mathematics teaching and will highlight the old adage that "telling is not teaching."

The kindergarten.—Some supervisors reported that parents, and a few primary grade teachers, were pressing for more formal education in the kindergarten, particularly for reading. The group generally agreed that the school should provide kindergarten children with opportunities for many experiences that will enrich their backgrounds and encourage them to read when ready. Some children will be ready in the kindergarten; others, in the first grade. Parents should be brought together to discuss kindergarten programs to enable them to understand the wide range of abilities and needs in a kindergarten group.

On the improvement of teaching

Inservice education for improving teaching seems to be the method most frequently used in the cities represented at the conference. Among the programs the supervisors described, these are typical:

One city is conducting a project aimed at the continuous development of creative leadership among teachers. At first only a few teachers participated in study groups discussing ways of improving teaching, but when the word got around that the study groups were helpful, other teachers became interested and more groups were formed. The supervisors agreed that an inservice education program begun successfully on a small scale, if given the proper support, would gradually spread throughout a city.

Another city has a program to help principals become effective leaders in their schools. Principals meet in small groups to study a variety of problems (one group studied programs for high ability children; another, scope and sequence in curriculum planning). General supervisors from the central office meet regularly with the principals.

A city with a large number of Puerto Rican children is working on programs for non-English-speaking children. A coordinator designated to head these programs uses many avenues in helping develop the skills they need to teach these children: Regular television lessons for inservice training; curriculum resource centers to provide suitable materials; and findings of committees studying learning difficulties. A film on teaching English to Puerto Ricans is in production. An advisory committee coordinates the activities dealing with the educational problems of Puerto Rican children.

On improved practices and facilities

The conference turned to newer practices intended to provide better learning opportunities for children, such

as the nongraded school, team teaching, teaching machines, and grouping of pupils who are talented and creative.

Nongraded school.—The supervisors saw the nongraded school as a possible means of creating a setting that would encourage maximum development of each child; that would provide for the differences in potentials, opportunities, motivations, and rates of growth among children that defy all efforts to make any group progress at the same rate and to meet the same grade standards of achievement in the same length of time. In the nongraded school, children beyond kindergarten age but usually below the fourth grade are grouped together in classes without grade level distinction. Some children may spend 2 years in the cycle, some 3 or 4. The supervisors say they have found several merits in the plan: It avoids gaps in learning—children continue to move onward regardless of what was formerly the work of the next grade; it eliminates damaging pressures on teachers and children to meet grade standards; children do not experience serious and repeated failures that tend to warp their self-concept; it eliminates grade levels that are unrealistic expectations; and it provides opportunity for flexible grouping.

Team teaching.—The supervisors defined team teaching as an attempt to modify school structure in order to free teachers to meet the educational needs of children and discussed it as a means of improving instruction. They cited several reasons why it is gaining ground:

> Some educators think it is a way of using staff efficiently and economically. Many think it is the answer to the need for more specialized teaching in the elementary school.
>
> Since the teacher teaches in the field in which he is most competent, greater flexibility is possible in the assignment of teachers and in the grouping of pupils for instruction.
>
> It allows for differentiated grouping for all subjects or activities of the curriculum and for wide variation in purpose and size of instructional groups.

Teaching machines.—Supervisors were interested in the use of teaching machines for the improvement of instruction through programed learning. In their discussion they made these points:

> Machines *do not teach*—a machine is not even necessary for programed instruction (a textbook is a kind of programed instruction without self-correcting devices).
>
> The development of well-planned programed materials is the major requisite of self-teaching. To prepare satisfactory programing, the programer must state specific, not general, objectives.
>
> The program stimulus must bring from the learner the responses wanted. If the child does not learn, the materials are inadequate; in other words, for purposes of developing materials, it is never the child who is at fault if he does not learn through programed material.
>
> Before buying teaching machines, schools should find out whether programed materials suitable to their particular needs are available.

On the education of the gifted

The supervisors discussed a number of plans for the education of talented and creative children—homogeneous grouping, heterogeneous grouping, acceleration, and enrichment. Schools in most of the cities they represented use various forms of homogeneous grouping—special classes within an individual school, special classes in centrally located schools, and creative learning centers during the summer. In general, their criteria for placing children in classes for the gifted include the results of group and individual tests, achievement in skill subjects, and teacher judgment. For children in special groups, the schools extend subject matter and enrich courses instead of accelerating their schedules. Although some cities use homogeneous grouping extensively, most supervisors agreed that it was impossible to organize a really homogeneous group. An assumption that a group really is homogeneous may result in overlooking differences and leaving individual needs unmet. Some conferees feared that homogeneous grouping would develop class feelings among children. But all agreed on some points:

> The organization and the structure of a program for the gifted are not the determining factors—what happens in the classroom between the teacher and the student is the important thing.
>
> There is no substitute for good teaching.
>
> The teacher must be free to do a creative job. Rigid curriculum, lack of materials, poor leadership, and other handicaps to creativity may strangle even the best teacher.

The supervisors agreed that whether children are grouped homogenously or heterogeneously, there are certain conditions necessary for good education. Among them are the following:

> *Principals* who are community leaders, who know what it takes to make a good school, and who encourage growth in both children and teachers.
>
> *Teachers* who encourage and inspire students to ask and to find out, to develop their own powers, to experiment, to go beyond the obvious, and to think critically and creatively.
>
> *Materials and opportunities* in abundance and readily available to facilitate dynamic learning in all children—books for information and pleasure; laboratory material to aid in seeing, doing, and understanding; trips for first-hand information; and opportunities to explore cultural and scientific areas.
>
> *A learning environment* that supports individual counseling, activity, and study, individual and group work, and creativity in all its aspects.

On providing good education in decaying centers

Many of our largest cities, the supervisors pointed out, have the problem of maintaining good education in "downtown areas." Large enrollments and lack of classroom space have resulted in double shifts and large classes. To relieve the pressure, schools are using portable schools,

are assigning additional teachers, counselors, and assistant teachers. They do not make a common practice of reassigning or transporting children.

The supervisors cited several ways of improving morale in these schools:

> Providing the school with a strong principal, for only a strong principal can acquire and keep a good staff and build prestige for a school.
>
> Increasing salary increments for teachers assigned to these regions.
>
> Reassigning teachers throughout the system every 2 or 3 years makes it easier to transfer excellent new or experienced teachers to downtown schools.

Participants offered several suggestions for enriching programs in these schools, such as involving the school in an educational experiment, conducting an afternoon program for neighborhood children, or getting the help of service organizations for special projects (one school got volunteers to supervise evening study sessions for students who found it difficult to study at home). Some cities have made intensive surveys to find ways of enriching the lives of children through the use of museums, observatories, art galleries, and the like.

The representative of one school system reported that her system was conducting a 3-year project in the form of a human relations study cosponsored by the board of education and the National Conference of Christians and Jews. Six schools and 50 teachers are collaborating. The first step in the project was to have the children identify their perceptions of their environment and how they felt about it. From this has followed the development of classroom units emphasizing human relations and interpersonal understanding.[2]

[2] Muriel Crosby, Dir. *An Adventure in Human Relations.* A 3-year Experimental Project on Schools in Changing Neighborhoods. Progress Report, Section I, First Year, 1959-60. Wilmington, Del., Board of Education, 1960. 34 pp.

Statistic of the Month

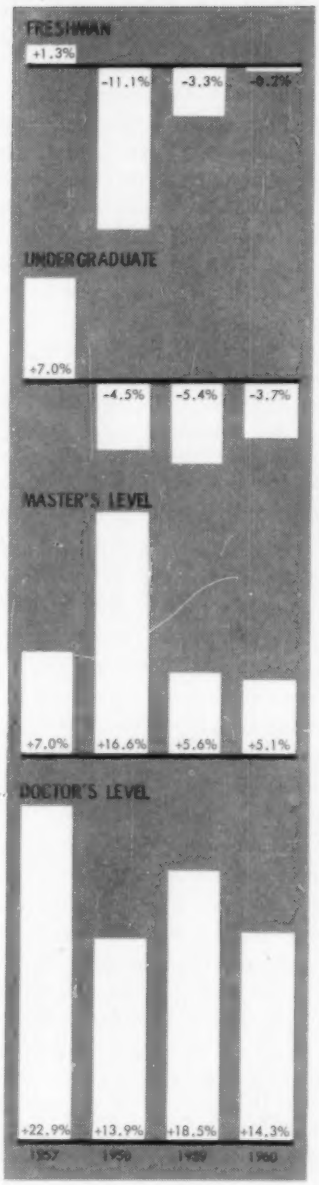
Engineering Enrollments

Fall engineering enrollments among both college freshmen and undergraduate students in general have been falling off in the last 3 years, but the 1960 figures, just released, show the decrease to be slowing down (when it began, in 1958, it reversed a rising trend which had persisted for 6 years among undergraduates and for 7 years among freshmen). For freshmen 1960 almost completely arrested the decrease.

At the graduate level, however, enrollments have steadily increased. In all the 12 years for which the Office of Education has published reports on engineering enrollments, graduate enrollments have known only two interruptions in their rise—once in 1954 at the master's level and again in 1955 at the doctor's level. Enrollments at all levels since 1957 have been as follows:

	Engineering enrollments	Change from year before in percent
FRESHMEN:		
1957	78, 800	+1. 3
1958	70, 000	−11. 1
1959	67, 700	−3. 3
1960	67, 600	−0. 2
UNDERGRADUATES:		
1957	269, 000	+7. 0
1958	257, 000	−4. 5
1959	243, 000	−5. 4
1960	234, 000	−3. 7
AT MASTER'S LEVEL:		
1957	24, 100	+7. 0
1958	28, 100	+16. 6
1959	29, 700	+5. 6
1960	31, 200	+5. 1
AT DOCTOR'S LEVEL:		
1957	4, 200	+22. 9
1958	4, 800	+13. 9
1959	5, 600	+18. 9
1960	6, 400	+14. 3

These figures, compiled from data submitted by the 240 institutions of higher education which confer engineering degrees, are reported in full and analyzed in many ways in Engineering Enrollments and Degrees, 1960 (OE–54006–60), by Wayne E. Tolliver, Educational Statistics Branch, and Henry H. Armsby, Division of Higher Education. The publication is sold by the Superintendent of Documents, Washington 25, D.C., for 45 cents.—Emery M. Foster, Chief, Research and Surveys Section.



Fall engineering enrollments at four different levels, 1959–60, each expressed as percentage of change from the year before

HYRUM M. SMITH

Pupil personnel services—what and how

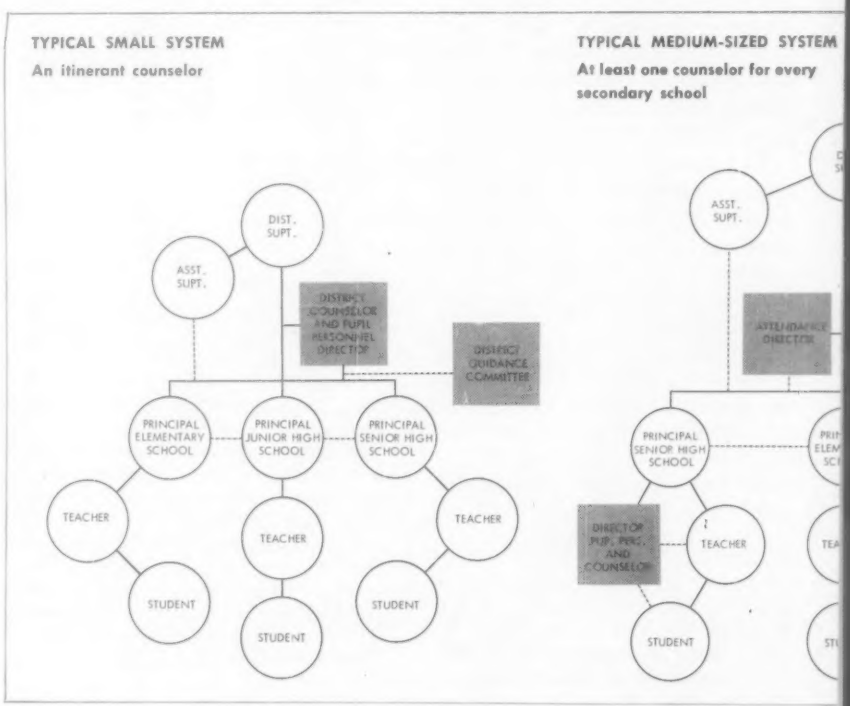
THE STUDENT'S ABILITY to learn, most educators would agree, depends on his adjustment to school and society, his readiness to learn, and his general physical and mental well being. If he is to direct himself realistically, he must increasingly understand himself in relation to the opportunities, obligations, and requirements of a democratic society. To provide the student with the best opportunities for learning, the school must give him more than textbooks and teachers, however excellent. It must help him resolve problems, make good educational and vocational choices, and be free of health problems that would obstruct learning. One way in which the school can do this is to provide first-rate pupil personnel services.

What they are

Once the term "pupil personnel services" meant little more than guidance, but today it describes the noninstructional professional school services many elementary and secondary schools provide for their students. These services, as outlined in a policy statement by the Council of Chief State School Officers,[1] are attendance services, social work services, guidance services, health services, and psychological services. Though some school superintendents include still others, such as remedial instruction, speech and hearing correction, and instruction for the homebound, the five specified by the Council are the ones most often found in pupil personnel departments.

Attendance services have two functions: To conduct pupil accounting, including census taking, and to insure that every educable school-age child has an opportunity to receive an education. The specialists who work with attendance problems are school social workers, visiting teachers, or attendance coordinators (the term "truant officer" with its implication of force is passing from our vocabulary). Habitual nonattendance is often a symptom of such problems as underachievement, lack of confidence, nonacceptance by the peer group, or a physical handicap. It takes professional skill and time to determine the cause and to help the student, and often his parents, to adjust satisfactorily to school. Social work training provides an ideal background for effective attendance work.

Social work services are designed to help children who demonstrate in their attitude or behavior an inability to use school experience positively—an inability which hinders not only their own progress but the progress of others. Casework—helping the student, his parents, and his teacher—requires the skill unique to the professional



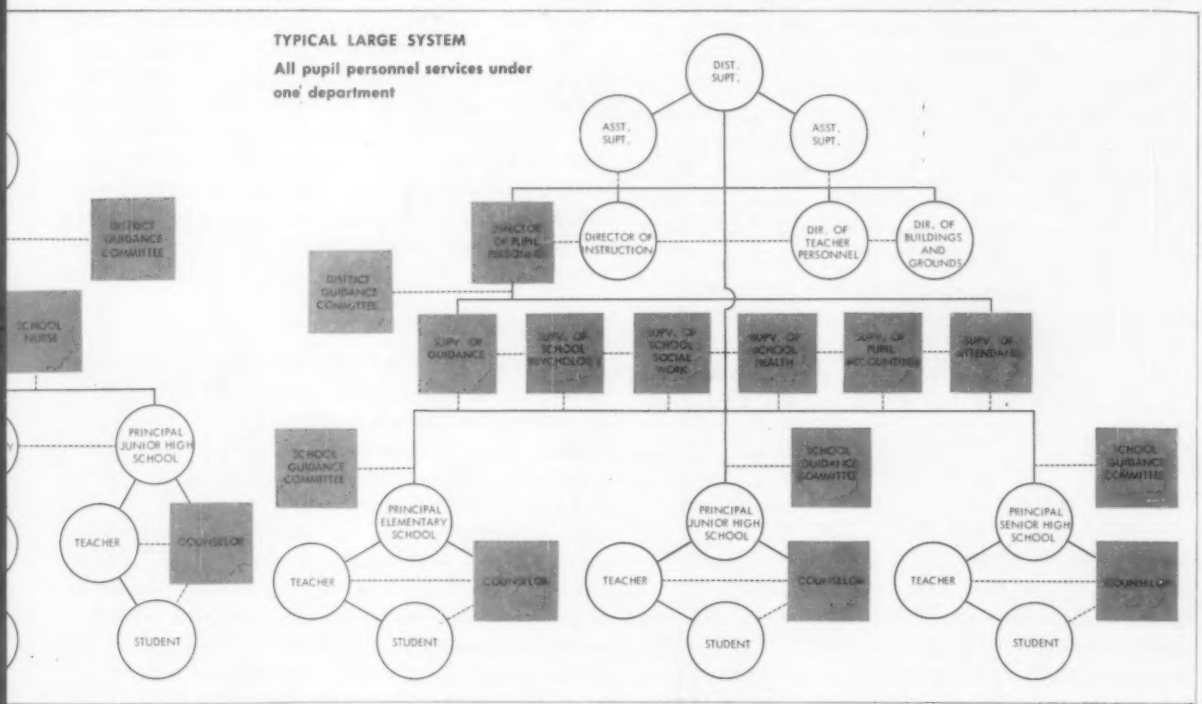
[1] *Responsibilities of State Departments of Education for Pupil Personnel Services.* Council of Chief State School Officers, Washington, D.C., 1960.

Mr. Smith joined the Office of Education in September 1960 as specialist for school personnel services. He was formerly director of the pupil personnel and guidance department of the Utah State Department of Public Instruction. He has been an assistant director of pupil personnel in a large school district, administrative assistant in a large technical school, head instructor for management and supervisor training at Hill Air Force Base, head instructor in a Navy technical school, instructor at Utah State University, field supervisor for the Graduate School of Social Work, University of Utah, and has served as a regional representative for "Project Talent," a national testing program.

social worker. The worker must have extensive knowledge of human growth, development, and behavior, and must know how to use community resources and facilities. The professional social worker has had a 2-year graduate program leading to the master's degree in social work.

Guidance services in the past carried the same large meaning as pupil personnel services, but the meaning of guidance has narrowed. The major function of the guidance worker is to counsel students. The counselor works with students on educational and vocational planning and personal problems common to their age group to help them gain insight into problems and to make judicious decisions. The counselor must be trained in the administration and interpretation of standardized tests. He functions as a school staff member and is directly responsible to the principal. He confers regularly with other staff members on student progress, group test interpretation, and curriculum development. Each State sets its own requirements for guidance counselors, and school systems may add still others. Requirements vary from a few graduate courses in guidance to a master's or doctor's degree. In 1960, according to State reports to the Office of Education, the secondary schools alone employed the equivalent of 1,700 full-time counselors and supervisors, but they need an estimated 20,000 more to bring the national ratio of counselors to students in the secondary schools from the present ratio of 1 to 610 to the recommended ratio of 1 to 300.

School health services aim at developing in each child a sense of responsibility for his own health and for the health of others and an understanding of the principles of good health so that he will not be deprived of an effective education because of poor health. Health services are provided by school health nurses, doctors, dentists,



correctionists, and therapists. Nurses receive training in child psychology, education, public health, and child growth and development in addition to their nursing training. Correctionists and therapists have at least 1 year of graduate training in their specialties—working with children who have speech, hearing, sight, or other physical handicaps.

School psychological services supplement the school's reservoir of information about each child's capacities, achievements, interests, potentialities, and needs. The psychologist's function in the school is to work with students who have serious learning or behavior difficulties because of physical, mental, or emotional handicaps. He must be skilled in giving an intensive psychological diagnosis of a problem and interpreting it to the school and home. The school psychologist has at least a master's degree; the American Psychological Association recommends that he have a doctor's degree in psychology.

Organization

Each of the five major pupil personnel services has a specific and definite place in the educational process. Each service is dependent on the others for vital information, and all the services work together toward the same goal—helping children to use their school experiences in a positive, constructive way.

Any program of pupil personnel services should be organized in terms of the specific needs of the school system. The charts on the preceding page show the organization of pupil personnel services in three typical school systems: A small system served by an itinerant counselor; a medium-sized system employing at least one counselor for each secondary school (one of the counselors is usually the guidance director and coordinates all pupil personnel services in the school or schools); and a large system providing all its personnel services through one department—an arrangement which gives the student maximum service. Many district and county systems employ itinerant specialists.

Many more secondary schools now employ qualified school counselors for guidance activities than were doing so in 1958; financial aid under title V–A of the National Defense Education Act has encouraged and made possible much of the increase.

It seems evident that in the immediate future our schools' need for employing noninstructional professional personnel will far exceed the number prepared by our colleges and universities. School systems that are fortunate enough to obtain pupil personnel workers to assist their teachers will be able to give more of their pupils the opportunity and satisfaction of reaching their potential.

Financial accounting and

FINANCIAL ACCOUNTING PROCEDURES are basic to good educational administration. They form the basis for setting up sound administrative procedures; for informing the public mind, which must understand before it will support; for enabling business management to service the educational program; and for providing controls and safeguards for public money and property. Although we generally admit the vital importance of financial accounting for public school funds, we do not know the status of that accounting. We do know, however, that financial accounting and reporting have not kept pace with changes in education; both educators and accountants agree that there is a lag between the adoption of new practices in education and the adoption of new procedures in accounting.

In the last few years emphasis on the various phases of education has shifted: new methods have been developed and widely adopted; the value of using cost accounting principles has been increasingly recognized; and research on the cost-quality relationship in education has created a demand for accurate data. Despite these developments and the increased interest in financial accounting for public schools, we do not know the extent of improvements needed, the impediments to improvement, nor the best procedures for making necessary changes. Before we can chart any improvements we must know where we are now, particularly in dealing with problems of comparability in educational information, accounting principles and procedures, manpower needs, and the effects of legal provisions.

The problem of comparability

Standard accounts and terminology are the foundation for accurate recording, reporting, and interpreting financial information. Only when basic items of financial information have the same meaning in all State departments of education and in all local school districts can they be used profitably for all purposes.

We have already come far toward meeting that condition. We now have a national yardstick of financial measurement in the form of two handbooks that identify and define standard financial terms. The handbooks, first in a series designed to help States and local school districts reach a high degree of comparability in their reporting of educational information, have been prepared by

JAMES W. WHITLOCK

reporting: Where to improve?

the Office of Education working with the Council of Chief State School Officers and other national organizations. *Handbook I, the Common Core of State Educational Information*, identifies and defines 516 items of educational information, 172 of them on financing public elementary, secondary, and community college education; *Handbook II, Financial Accounting for Local and State School Systems*, contains standard receipt and expenditure accounts, classified and defined, and additional terminology necessary to using them effectively.

In terms of the standards set by these two tools, where are we now in the achievement of comparability? Apparently we still have a long way to go. As of June 1960, 22 of the 50 States were collecting in standard form less than one-half of the 172 items in *Handbook I*. There was great unevenness: One State was collecting only 44 items; another, as many as 140. Forty of the 46 States receiving Federal funds under Section 1009 of Title X of the National Defense Education Act were putting into use the *Handbook II* standard data items and definitions, but their efforts ranged from a mere beginning to substantial accomplishment.

What is impeding progress in standardizing financial information? What is the best method of accomplishing this task? The handbooks themselves are a good place to begin looking for answers to these questions, for continuous evaluation of national standards is necessary to securing comparability.

Handbook I has been in print for almost 10 years. Do the experiences of the States using it indicate that revisions are needed? Are the items agreed on 10 years ago as the ones every State should make available annually still valid or should some be deleted and others added? Have opinions changed on items that should be comparable? *Handbook II* was published in 1957. In the intervening years what have the experiences of the 40 States using *Handbook II* taught us? Do we need to make revisions? Do the charts of receipt and expenditure accounts conflict in any way with the terms and definitions in *Handbook I*?

Although all problems of using *Handbook II* have not been identified, some are clearly apparent. For example, the handbook suggests classifying expenditures by object (*what was purchased*) and function (*the purpose of expenditure*) but does not provide for an adequate function-object coding system. The school districts using bookkeeping machines or automatic data-processing equipment in accounting for receipts and expenditures are therefore having to make adaptations in the handbook accounts. Some are changing subaccount letter designations to decimals, adding numerical digits, devising new account numbers, and rearranging subaccounts to rigidly separate function and object. Such adaptations point up the need for continuous evaluation of the suggested standards.

What else can we do to achieve comparability? How can we best organize the efforts of all concerned to get the job done? How far have we come toward achieving comparability? These are important questions that we must answer.

Problems of principles and procedures

There are differences of opinion on accounting for public school funds. Some persons maintain that the accounting system of a school district, as a unit of local government, should conform to recognized governmental accounting standards. In contrast, others maintain that certain principles and procedures apply specifically to public school accounting.

Between these two opinions there are various others. All, however, revolve around the degree to which business and governmental accounting principles should apply to public school accounting. On questions of depreciation, for example, the argument is made that accounts related to depreciation are necessary only for working capital funds, that is, for funds used to cover the operations of self-supporting service units such as a central storehouse

Dr. Whitlock, specialist in records and reports, came to the Office in September 1960 from George Peabody College for Teachers, Nashville, Tenn., where he was associate director of the Division of Surveys and Field Services and taught graduate courses in school finance and school business management. Before joining the Peabody staff, Dr. Whitlock was coordinator of the Division of Finance and Administrative Services of the Tennessee State Department of Education.

or central garage. Those who make this argument believe that the school district would be enforcing double taxation if, in setting tax rates, it considered depreciation as well as acquisition cost.

Persons holding opposing views believe that since tangible assets depreciate regardless of the status of the owner, financial statements ignoring depreciation are neither correct nor informative. The source of the income which may or may not replace depreciating assets has no effect, they say, on the fact of depreciation.

The extent to which public school accounting is adaptable to full-accrual double-entry accounting and the principles and procedures that should apply are not yet agreed on. We need a statement of the principles and procedures of financial accounting and reporting that apply to public schools and that educators and accountants can accept.

Manpower problems

Earle L. Rauber,[1] vice president and director of research of the Atlanta Federal Reserve Bank, predicts that by 1975 the U.S. population will reach 222 million and, if 85 percent of the increase continues to be in the 168 metropolitan areas defined by the census, the metropolitan population will increase by 60 million.

The increase in population and the spread of urban and suburban areas will inevitably bring with them strong demands for extension and expansion of all types of public services—and much higher costs. If the costs are to be kept within reasonable limits, municipal government must be managed as efficiently as big business and administered as competently. Since public education will require an ever higher level of support, it is not likely that anything less than efficient operation and careful accounting of school funds will be tolerated. And efficient financial accounting depends in large measure on the men responsible for it.

Assignment of responsibility for financial accounting varies with the size of the local school district: in small districts the superintendent of schools may be responsible; in large districts, the school business administrator. Financial accounting is usually separated from other school business early in the growth of the school district and the position of bookkeeper or accountant created; as the system grows, subsidiary positions—budget control officers or auditors—may be created. Generally speaking, the larger the system, the more likely school business functions are to be divided among several persons, each charged with specific responsibility.

Regardless of the number of positions or titles used, we should decide what constitutes quality in the person responsible. Can it be measured by formal college training in specific courses of instruction? What knowledge is worth most at each level of responsibility?

Preservice training needed.—For many years there has been some controversy over the background prerequisites of the school business administrator. Some persons believe he should be considered a member of the educational team and required to have a sound background in educational philosophy, theory, and administration. Others do not, and they point to the many men in positions of responsibility in school business administration whose college training has been in business administration, engineering, accounting, and other noneducational fields.

What constitutes a fair balance between ability to handle the mechanics of school business, including accounting, and knowledge and understanding of other school programs? Are educational courses giving proper emphasis to financial accounting as one of the functions of the school business administrator? Certain facts suggest that they are not giving this emphasis, that graduates of some schools of education at all degree levels go into school business administration ill equipped for accounting, one of their major responsibilities. In many of our leading colleges, courses for the prospective school administrator give no more than a cursory look at principles and procedures of financial accounting. And some doctoral programs in educational administration do not cover principles applicable to accounting for public school funds.

Most institutions of higher education that have colleges of education also have colleges or schools of business administration that stress accounting. Should persons training for school business administration be detoured through these schools? Traditional accounting courses are designed for persons going into private business and require long periods of study; courses in governmental accounting are designed for persons going into county, State, and Federal government and may not thoroughly consider procedures applicable to school districts. With these courses so organized, some writers insist that public schools can gain for themselves the same advantages as other public services have through the development of formal courses in public school financial accounting.[2]

Will the traditional accounting courses in a school of business administration suffice for the subordinates to the school business administrator—the employees who handle

[1] Earle L. Rauber, "Walking the Dog," *Monthly Review* (Atlanta Federal Reserve Bank), January 1960. p. 3.

[2] Sam Tidwell, "Fundamental School Fund Accounting," *American School Board Journal*, May 1957, 134: 37.

the mechanics of the job? or should they be required to take supplementary courses in accounting for school funds? If they need supplementary training, what cooperative arrangements would be necessary between schools of education and schools of business administration to provide for it?

Inservice training.—Agreement on preservice education for persons in financial accounting should give some direction to the inservice training programs needed to upgrade persons already employed. Even so, many other questions would still be unanswered: What kind of inservice education programs are needed? What efforts are State education agencies and professional organizations making to provide such training? How can current programs be improved? What should State education agencies, professional accounting and education organizations, and the U.S. Office of Education contribute to this undertaking? How can the efforts of these groups be coordinated?

Need for additional manpower.—The need for additional employees now and in the future depends on two major factors: The number of persons leaving school management and accounting and the expanding and changing educational conditions, such as increasing enrollments, consolidation of school districts, and the increasing complexity of the educational program. We have not yet determined the extent of turnover in business management nor the effect of changing conditions on the need for additional employees. We can be sure, however, that they will greatly affect personnel needs in all phases of education.

In small districts operating a single one-teacher school, financial accounting is a minor function; but when these districts consolidate, it becomes essential to efficient operation. In recent years the trend toward consolidation has been strong: from 1949 to 1961 the number of districts was reduced from 83,614 to 37,153, or 54 percent.[3] There is nothing to indicate that the trend will not continue, and further consolidation will increase the need for persons trained in accounting.

The Department of Labor [4] estimates that the labor force will increase by about 13.5 million workers during the 1960's, that approximately 47 percent of them will be 45 years old or older and that only 13 percent will be 25 to 34 years old—the age group from which most of our school business administrators must come. This means that schools recruiting business managers will have to compete with business and industry and that the salaries schools offer may be the deciding factor. Since only a few States have made salary surveys, we do not have up-to-date figures on salaries of school business managers and other accounting employees.

Effect of legal provisions

A public school district's accounting system must show that officials have complied with State laws and regulations. State legal provisions and restrictions, some of them stringent, may make it difficult or even impossible for an accounting system to follow sound principles and procedures.

Public school accounting must conform to all statutes governing the control of revenues, funds, trusts, borrowing, property assessment, collection of taxes, selection of depositories, fidelity bonding, and similar financial matters. Here too sound principles and procedures of accounting may conflict with those required by legal provisions.

Generally speaking, school revenues and expenditures are segregated into special funds to insure their use in accordance with legal provisions. Some States prescribe an excessive number of such funds; such a prescription needlessly complicates a financial system and tends to make it inflexible.

When legal provisions and sound principles and procedures conflict, legal provisions must of course prevail. When that happens, both educators and accountants should, as a professional responsibility, encourage authorities to revise legal requirements to make them compatible with the principles of sound accounting.

We do not know the extent of such conflict in the States and local districts. We do know, however, that the legal framework governing accounting for public school funds is important in considering the status of financial accounting.

In conclusion

Most persons familiar with the handling of public school funds would agree that school districts need an efficient system of financial accounting. And few would deny that many local districts do not have efficient systems. Before they can make major improvements, we must determine the exact status of current problems.

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[3] U.S. Department of Health, Education, and Welfare, Office of Education, "Statistical Summary of Education: 1955–56." *Biennial Survey of Education in the United States—1954–56.* Washington, D.C., Superintendent of Documents, Government Printing Office, 1959, Ch. 1. National Education Association, Research Division, *Estimate of School Statistics, 1960–61,* Research Report 1960—R 15. Washington, D.C., the Association, December 1960. Table 1, p. 19.

[4] U.S. Department of Labor, *Manpower—Challenge of the 1960's: Supplementary Statistics.* Washington, D.C., the Department, 1960. p. 9.

DUANE M. NIELSEN

The need for vocational education in agriculture

EVERY YEAR about 93,000 farm operators and workers in the United States die or retire. Who will take their places?

Most of the new workers for this industry will come from the farms themselves; but not all of them, by any means, will have had the training they need for their tremendously complicated jobs. Every year, on the basis of estimates for the decade 1954–63, an average of 200,000 farm boys reach their 20th year—far more than there are farm openings—but have enough of them been systematically trained for farming?

Approximately 10,000 secondary schools in the United States enroll 467,000 students in vocational agriculture classes, each year graduating an estimated 70,000 young men who have completed three or more years of vocational agriculture. Of these, however, only 25 to 55 percent, depending on the State, enter farming as their life's work; the national average is 35 percent, or fewer than 25,000.

This comparison of annual openings with available annual graduates gives us some idea of the shortage of trained men in agriculture. But to arrive at a more precise idea of the need, let us take a discriminating look at farms as they now exist in the United States. The 1959 Census of Agriculture reports 3.7 million farms (1.1 billion acres), which it divides into these categories:

Commercial farms (by value of gross sales):	*Number*
Class I ($40,000 and over)	102,000
Class II ($20,000 to $39,999)	210,000
Class III ($10,000 to $19,999)	482,000
Class IV ($5,000 to $9,999)	653,000
Class V ($2,500 to $4,999)	617,000
Class VI ($50 to $2,499)	348,000
Total, commercial farms	2,412,000
Other farms:	
Part-time ($50 to $2,500)	1,286,000
Institutional farms, experiment stations, etc	3,000
Total, other farms	1,289,000
Total, all farms	3,701,000

To the 3.7 million operators of these farms, the Bureau of Labor Statistics adds, for 1960, 1.6 million hired farm workers, making a total of 5.3 million people in farming that year (not counting 433,000 members of farm families over 14 years of age who worked without wages). From these ranks, death and retirement annually claim the following numbers:

Farm operators:	
Commercial farms:	*No. of vacancies*
Grossing 5,000 and more	25,467
Grossing less than $5,000	16,984
Other farms	22,686
Hired workers	27,421
Total	92,558

Deaths and retirements, however, are not the only circumstances that affect the opportunity outlook for young men who wish to enter farming. Occupational shifts go on continually: some people leave the farm for other jobs, some leave other jobs for farming. At the same time, the trend to large farms continues, and small units are constantly being combined to make larger; but many of the new opportunities in the upper brackets go to men already established in farming—men in the lower brackets who have advanced their resources or credit to the point where they can increase the size of their venture. The plus and minus factors, it seems reasonable to assume, probably offset each other.

The trend toward fewer and larger farms is one of the incontrovertible facts of life in U.S. agriculture. Between 1954 and 1959 the number of farms grossing $10,000 or more (classes I–III) increased 36 percent, and the total number of farms decreased 23 percent. Those 5 years saw greater specialization and commercialization in farming than any 10-year period before them—changes which reflect technological advances in production practices and sweeping changes in the organization and operation of individual farms. When we consider the trend

Dr. Nielsen came to the Office of Education in June 1960 as specialist in teacher training and research, agricultural education. He holds B.S. and M.S. degrees from the University of Nebraska and a Ph. D. from Iowa State University. In Auburn, Nebr., where he taught vocational agriculture for several years, he was also a supervising instructor in a student teaching center conducted in cooperation with the University of Nebraska. From 1955 to 1960 he was at Iowa State University as a member of the teacher-training staff in vocational agriculture.

toward, the technological advancements permitting, and the economic conditions necessitating large operating units, we see at once that many of the small inefficient units should be consolidated. Certainly a farm grossing less than $5,000 a year is not a highly desirable career objective for a young man today. But 2.3 millions of these farms do exist and many of them will still be in existence many years from now. And young men will continue to go to them, many out of necessity because they lack the capital they need to establish themselves elsewhere, many because they see possibilities of pushing these farms into higher production brackets.

Whether a young farmer starts high or low on the production ladder, his chief goal is to be as productive as possible, not only because success will reward him and his family but because the world needs food. There are twice as many people in the United States today as there were in 1910 although the ratio of farm population to total population has steadily declined, from 35 percent in 1910 to 23 percent in 1940 and 10 percent in 1960. And the total population continues to grow, at the rate of 3 million a year, or 8,000 a day. With the average person in the United States consuming three-fourths of a ton of food a year, each year's population increase requires farmers to produce an additional 2¼ million tons of food. This year we are needing 534 million pounds more meat than we did last year, a billion quarts more milk, a billion more eggs. Thus far the farmer has risen to the occasion. He has doubled his productivity in the past two decades, but he will have to double it again in the next two.

With the pressures of demand growing stronger year by year, the question of who will fill the annual vacancies on the farms becomes particularly urgent. As I have already pointed out, there are more than enough farm boys coming along every year to fill them, but not all of these boys have had the advantage of a high-school education. And the 70,000 who every year graduate from high school with at least 3 years of vocational agriculture are not enough, even if all of them become farmers:

Kind of vacancy	*Percent needed of the 200,000 farm youth 20 years old*	*Percent needed of the 70,000 vocational agriculture graduates*
Operators:		
Commercial farms:		
Grossing $5,000 and over	11.6	36.4
Grossing less than $5,000	7.7	24.2
All commercial farms	19.3	60.6
Other farms	10.3	32.5
All farms	29.6	93.1
Hired workers	12.5	39.2
Total, operators and workers	42.1	132.3

We have been fond of saying that the farmer's raw materials are the soil, the sun, the air, the rain, and the seed; but our poetic phrases do not take into account all that farmers must know, and have, and do in order to convert the raw materials into finished agricultural products and to market them in prime condition at the right time. After all, farming is big business, the Nation's biggest business. Its assets are worth $205 billion; its productive assets, $155 billion, or $22,000 per farm worker ($55,000 in the corn belt!), compared to $15,000 per industrial worker. Farmers annually use 45 million tons of chemicals, 17.5 billion gallons of crude petroleum, enough rubber to make tires for 6 million automobiles, and 22 billion kilowatt hours of electricity—enough to supply Chicago, Boston, Houston, Detroit, and Baltimore. A business as big as this has tremendous complexity besides. Not only must the farmer keep abreast of the developments in scientific agriculture—in his race with his own record he cannot afford to overlook anything he can turn to his advantage—but he must be a kind of social scientist and financial expert besides, for the various parts of his complex problem bear such names as *surplus, inflation, government programs, world crisis, price-cost squeeze, automation, subsidies,* and *credit.*

The sheer magnitude and complexity of today's situation in agriculture demands more and better agricultural education—not less of it. Findings in a number of statistical investigations show that high school graduates who have completed 3 or more years of vocational agriculture succeed in farming significantly better than comparable young men without such training. For example:

	With vocational agriculture	*Without vocational agriculture*
Percent above hired-hand status	89	79
Percent farming 160 acres or more	57	48
Gross product, in dollars	7,720	5,788
Increase in gross product per year, in dollars	532	357
Index of use of good management practices	72.4	66.0
Index of participation in organizations	36.4	34.4

Vocational agriculture graduates who go into farming have certain advantages to start with. They have a store of current technical and agricultural knowledge which they have learned how to apply. They have mastered certain principles of efficiency and good management, are acquainted with agricultural policies and programs, and know the importance of competent leadership and intelligent cooperation in times of complex adjustment. With this background they are better equipped to make a success of farming, no matter at what level they begin. This is the kind of preparation they deserve.

Even those vocational agriculture graduates who enter other occupations find that their up-to-date knowledge of agriculture, their training in problem solving, their proficiency in management, their practical experience, and their ability to give and support leadership are definite

assets. This is particularly true if they enter one of the many occupations related to farming; but even in other occupations, research has shown, they do as well as other high school graduates, not only in earnings but in the satisfaction they have in their work.

Nor is the vocational agriculture graduate likely to find himself at a disadvantage if he goes on to college. A review of 32 studies reveals that, on all but 9.6 percent of the counts in a variety of academic pursuits, students who had a vocational agriculture background did as well as, or better than, high school graduates with other kinds of preparation.

But it is not only the boy who plans to enter farming who needs vocational agriculture: the man already in farming needs it too. To the best of our information there are between 3.5 million and 4 million established adult farmers and farm workers in the United States today, and although most of them would profit from some form of systematic vocational training, only 235,000 are enrolled in vocational agricultural courses for adults. Of the approximately 1 million young farmers and farm workers in the process of establishment, only 56,000 are enrolled in vocational programs for young farmers. The needs of these two groups provide strong reasons for expanding and intensifying vocational education in agriculture.

How to provide vocational education for both prospective and established farmers is only one of the problems that lie ahead for vocational education in agriculture. But the problems of the future are in reality opportunities in disguise. They merit our profound attention: where we are now and how we got here are relatively unimportant compared to where we go from here.

The common denominator of the sixties will be change, rapid change. If we are to meet the accelerating and changing needs for vocational education in agriculture, we must expand and strengthen our current programs—but this we cannot do without far-reaching vision. To gain this vision, to see the new horizons, educators must keep informed about the agricultural situation, about the importance of vocational education in agriculture. Clearly this segment of public education is becoming increasingly vital, not only to the economy of local communities in rural areas but to the economy and welfare of the Nation.

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Briefly noted --- for the busy School Administrator

Material for this department is prepared by the staff of the School Administration Branch, Division of State and Local School Systems.

The administrator, key communicator. The school administrator is the key to good school-community relations. This is a conclusion of the research staff of the School of Education at Stanford University after a 3-year national survey on the importance of community understanding in the financial support of public education.

The researchers say, in their survey report, that the school administrator "must learn how to know his community realistically. He need not become a skilled researcher but he must be able to utilize the information gathered by research and be able to work with researchers in gathering local data." These abilities, the report pointed out, are primarily a matter of orientation, of an open and searching mind.

One of the difficulties in creating successful school-community relations, according to the report, is lack of understanding, that is, lack of agreement on what the situation is.

How does the school administrator get effective communication between school and community? By working through mediating agencies, the report says—through individuals, groups, and published materials—and by working continuously rather than reserving such communication for special issues, such as school bond elections.

The report emphasized that the mediating agencies can inform not only the community about the school but the schools about the community. Both must be done if there is to be understanding between school and community leaders, with whom rests the responsibility of formulating policy for review by the voters.

★ ★ ★

School law. Two new publications should be useful to administrators and others interested in school law.

The first, *Law and the School Principal,* published under the sponsorship of the National Organization on Legal Problems (NOLPE), discusses the supervision of pupil administration and attendance, the power of the principal to establish rules and regulations on pupil conduct, the legality of extra assignments for teachers, and the principal's legal responsibilities for tenure, school finance, and school patrol.

Reynolds C. Seitz, dean of the Marquette University School of Law, was editor in chief of the volume, and outstanding authorities in school law and experienced school administrators contributed the 13 chapters. The volume is No. 3 in NOLPE's *Legal Problems of Education Series*; Nos. 1 and 2 are *Law and the School Superintendent* and *An Evaluation*

of Existing Forms of School Law. All three were published by the W. H. Anderson Co., Cincinnati, Ohio.

The second, *The School Law,* published by the Office of the Illinois Superintendent of Public Instruction (May 1961 bulletin, vol. 52, No. 3) analyzes and interprets Illinois school law. In one article, Kenneth H. Lemmer, the legal adviser to the superintendent, examines the laws that control the maintenance and operation of public schools. Other articles discuss the legal rights and duties of teachers, the school tax, and the powers of the board of education to control pupils' conduct.

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More on high school size. There is a positive relationship between the size of the high school graduating class and the proportion of graduates who ultimately earn doctorates, according to a study made by the Office of Scientific Personnel–National Research Council and supported by a grant from the National Science Foundation and the Office of Education.

The study found that the larger the graduating class the higher the proportion of its members who earn doctorates: in the few schools with graduating classes of more than 800 students, the proportion was 22 doctorates per 1,000 graduates; in schools with from 400 to 800 graduates, a more nearly typical size, it was 11 doctorates per 1,000; in small schools, 60 to 99 graduates, it was slightly more than 6 per 1,000.

The study does not identify reasons for the relationship but notes that large schools are likely to have good equipment and facilities and highly qualified teachers.

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Hawaii studies its schools. A strong nonpartisan State board of education, a decentralized educational system, and active local participation by citizens in Hawaii's four counties—these were the recommendations of a special committee of the Hawaii Congress of Parents and Teachers. The committee was charged with conducting a study of public education in the State.

The committee believes that in this period of transition from a Territory to a fully functioning State, Hawaii needs to build a firm foundation for the future of its public education.

Under its present centralized system of education, Hawaii places all districts and schools under the operating and regulatory control of the State board of education and one superintendent. There are no local boards of education; the State legislature, which holds the educational pursestrings, sets basic educational policy. With an eye on the pattern established by the older States, the committee advocates the forming of local county school advisory councils to give citizens a means of participating in educational activities at a level between local schools and the State board.

School bond sales. New school bond sales for the first 9 months of the 1960–61 school year were 14.6 percent higher than the sales for the corresponding period of the 1959–60 school year, as the following table shows:

Issuing agency	July–March 1959–60	July–March 1960–61	Increase over 1959–60
	Thousands	*Thousands*	*Percent*
State	$117,065	$220,807	88.6
County	51,001	99,853	95.8
City, town, township	163,169	167,992	3.0
School district	1,064,033	1,111,843	4.5
Authority	93,026	104,649	12.5
All agencies	1,488,294	1,705,144	14.6

Although all issuing agencies have shown increased sales, the greatest percentage increases have been by county and State governments. Sales for the first 9 months of 1960–61 have been at an annual rate of $2,274 million, up about $80 million over 1959–60, but nearly $150 million below the record set in the 1957–58 school year, when sales totaled $2,420 million.

Average net interest cost of new bond sales for public school purposes, April 1960–April 1961, by Moody ratings

This summary is based on sales reported by the Investment Bankers' Association. About 75 percent of the sales had a Moody rating

Period	AAA	AA	A	BAA	BA	All rated bonds
1959–60						
April	3.18	3.63	3.79	4.24	4.50	3.83
May	3.24	3.31	3.77	4.13	4.51	3.80
June	3.02	3.66	3.62	4.12	4.30	3.73
1959–60 average	3.26	3.63	3.78	4.21	4.55	3.84
1960–61						
July	3.08	3.37	3.72	4.00	4.47	3.78
August	2.81	3.01	3.47	3.73	4.23	3.47
September	2.66	3.56	3.48	3.80	4.41	3.51
October	.....	3.26	3.54	3.90	.....	3.63
November	2.78	3.15	3.39	3.78	4.13	3.44
December	2.80	3.09	3.45	3.78	4.18	3.51
January	2.66	3.57	3.39	3.79	3.66	3.52
February	2.85	3.16	3.22	3.50	3.80	3.27
March	3.12	3.19	3.44	3.70	4.06	3.46
April	.....	3.20	3.38	3.73	4.28	3.43

Intermediate revenue district proposed. The California State study of financial support of public schools, authorized by the State legislature in 1959, proposes a county-wide system for the support of elementary and secondary schools. Under this proposal, the foundation program would be guaranteed by county and State aid. Programs beyond the foundation level would be provided for through additional property taxes collected and used within the boundaries of the separate school districts.

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Computer programs for high school students. More than 200 high school students in counties surrounding the District of Columbia are hard at work learning beginner's techniques of computer programing. Their interest has been stimulated by an experimental course, Introduction to High School Digital Computation, designed to attract talented high school students to the computing field. The experiment is sponsored by the Washington, D.C., chapter of the Association for Computing Machinery and the Board of Education of nearby Montgomery County, Md.

The 26 high school juniors and seniors who are voluntarily taking the experimental course met these requirements: 2 years of algebra, 1 year of geometry, 1 year of physics, grades of A or B in regular class work, and a high degree of interest in mathematics and science. They attend class 3 hours and do an average of 4 to 5 hours of homework each week. At first they learn to write a program for a simple, theoretical computer and then work up to writing programs for a machine as complex as the IBM 709 and a task as complex as a simulated firing of rockets.

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Staff-pupil ratios. The New York State Department of Education has worked out ratios of instructional staff to pupils that may help local administrators with their staffing problems. Problems of determining the number of instructional staff members their schools need to carry out educational programs persistently perplex administrators, for they must consider many variables, such as the size of the school system and the educational services the community desires for its children.

The department does not recommend a staffing formula or uniform ratio to be applied to school systems; it does recommend staff ratios that might be considered as the minimum adequate for comprehensive elementary and secondary school programs, not including vocational, industrial, and technical courses.

Ratios range from 51.2 per 1,000 in school districts with an enrollment of 750 elementary and secondary school pupils to 45.5 for a school district with 10,000 pupils from kindergarten through grade 12. Included in these figures are administrative, supervisory, and special service staff, varying in ratios of 4 to 6 members per 1,000 pupils.

Aside from administrative, supervisory, and special service staff, the department suggests minimum teaching staff ratios (not necessarily ideal ratios) for designated elementary and secondary school enrollments:

For selected elementary school units:						
School enrollment (K–6)	450	750	1,500	3,000	6,000	.....
Classroom teachers	16.0	27.0	55.0	109.0	218.0	.....
Special service teachers	2.5	3.75	6.5	11.0	19.0	.....
Total instructional staff	18.5	30.75	61.5	120.0	237.0	.....
Pupil-teacher ratio	24.3	24.4	24.4	25.0	25.3	.....
For selected secondary school units:						
School enrollment (7–12)	300	700	1,150	2,020	3,475	4,030
Instructional staff	15.0	33.0	54.0	94.0	159.0	180.0
Pupil-teacher ratio	20.0	21.1	21.3	21.5	21.9	22.4

For the secondary schools the staffing provides for the following subjects: English, social studies, business education, art, music, agriculture, industrial arts, homemaking, physical education, driver education, and school librarians. In schools with over 700 pupils it also provides for special class teachers.

The department compiled these figures in a study it made to determine the number of professional staff members needed for every 1,000 pupils, using data from survey forms completed by a representative group of school systems.

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Grim future. There is at least one State that needs a new school every day just to keep up with its soaring enrollment. Thousands of its elementary pupils are already on double sessions. In the first 7 months of this fiscal year it has allocated $117 million for construction of classrooms—enough to house 93,800 students—but still has not met its schoolhousing needs.

The State? California. The forecast for the future? Grim. By 1965, according to the State Department of Education, California's current enrollment will jump to 4.3 million; by 1970, to 5 million. The cost of new classrooms alone—just to meet the increases in enrollment by 1965–66, not to wipe out double sessions and eliminate the construction backlog—is estimated at $1.5 billion.

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Legal study. Within a month after publishing *Research and Reporting Activities in Legal Problems of Education* (OE–23011, by Marion A. McGhehey, head of the State school systems law unit), the Office of Education had received hundreds of requests for copies. The publication traces the historical development of school law as it is related to administration and discusses current activities and the need for research and development programs. Although it was prepared primarily for the student of school law, we recommend it to all who are interested in the legal aspects of education. Free copies are available from Dr. McGhehey, Office of Education, Washington 25, D.C.

To improve city schools. Four years ago school boards and superintendents in 14 large cities, supported by a Ford Foundation grant, initiated a program to improve schools in "gray areas"—the depressed neighborhoods lying between the commercial centers and the better residential sections. Now 10 of the 14 cities are at work on such projects.

Records of schools in these neighborhoods show urgent need for improvement: They have 2 times the average rate of absenteeism, 11 times the average of pupils over age for their grade level, 6 times the average failure rate in elementary schools, and 3 times the average for school dropouts. Superintendents in these cities report that the number of pupils who come to school handicapped by cultural and economic poverty has increased in the past 10 years from 1 to 3 out of every 10 pupils and that the proportion may be 1 out of 2 by 1970.

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Migratory farm children. As the crop-picking season moves northward, approximately 100,000 migratory farm families, including many school-age children, will follow it. Nearly every State will have some migratory families: at least 16 States will have more than 10,000 migrants at the peak of the season, only 11 States will have less than 100; more than 900 counties will have at least 100, some will have more than 10,000.

Into whatever community migrants go, they will create problems for the public schools that must provide additional teachers, facilities, and equipment for migrant children. But these children will need more than classroom space and equipment. They will need encouragement and extra attention from the teacher. Many of them are already at a disadvantage: year after year they enter school late, attend irregularly, drop out early, and, as a result, are generally retarded one or more grades. Many are unhealthy, ill-fed, ill-housed, and so isolated in a world of their own that they cannot become a part of the school community.

Local school systems are trying to provide for these children. They are holding special summer sessions; conducting special programs during the regular term to give them additional help in reading, arithmetic, health practices, citizenship, and homemaking; employing extra teachers for the season or for the term.

For 2 years two county school systems—Northhampton County, Va., West Palm Beach County, Fla.—worked together to give migrant children a better education by jointly employing a consultant to work with these children. As families shifted back and forth between the counties, the consultant went with them and worked with both teachers and children. The children benefited from this cooperation for they knew that they had a friend in the schools who expected them to enroll, and they tried not to disappoint her.

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Summer school for able students. This summer the Cincinnati Public Schools are offering able students an opportunity to take enrichment courses not available during the regular term. The courses, most of them organized as seminars, are designed to help students acquire or develop skills they will need in schools or colleges. Among the courses: Survey and appreciation of art, advanced writing, probability and statistical inference, advanced home economics, and advanced electricity and electronics. All are credit courses, but students cannot use the credits to meet graduation requirements.

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Keeping tab on population changes. The Philadelphia school district reports, along with its enrollment data, turnover in enrollment and migration for the system as a whole and by type of school, and, in schools with unusually high rates, population mobility. Its most recent report, covering the first 5 months of the 1960–61 school year, shows a 26-percent turnover in enrollment for the system and, in some elementary schools, a turnover as high as 50 percent. More than 5,000 pupils transferred to Philadelphia schools from outside the city and nearly 6,000 pupils left.

Office of Education Publications in 1960–61

Adult Education

EDUCATION OF THE ADULT MIGRANT, 50 cents (OE–13012).

Biennial Survey of Education in the United States

CHAPTER 2, STATISTICS OF STATE SCHOOL SYSTEMS, 1957–1958: ORGANIZATION, STAFF, PUPILS, AND FINANCES, 70 cents (OE–20020–58).

STATISTICAL SUMMARY OF STATE SCHOOL SYSTEMS, 1957–58: ADVANCE REPORT, BASED ON CHAPTER 2 OF THE BIENNIAL SURVEY OF EDUCATION IN THE UNITED STATES, 1956–58, 15 cents (OE–20016).

Cooperative Research

COOPERATIVE RESEARCH MONOGRAPHS:

1. RESEARCH PROBLEMS IN MATHEMATICS EDUCATION, REPORTS

FROM A CONFERENCE ON PSYCHOLOGICAL PROBLEMS AND RESEARCH METHODS, 55 cents (OE–12008).

2. THE GIFTED STUDENT, RESEARCH PROJECTS CONCERNING ELEMENTARY AND SECONDARY SCHOOL STUDENTS, 35 cents (OE–35016).

3. MOTOR CHARACTERISTICS OF THE MENTALLY RETARDED, 20 cents (OE–35005).

COOPERATIVE RESEARCH PROJECTS, FISCAL YEAR 1959, 25 cents (OE–12004).

Education Directory, 1960–61

PART 1: FEDERAL GOVERNMENT AND STATES, 30 cents (OE–20004–61).

PART 2: COUNTY, CITY, AND OTHER SCHOOL SUPERINTENDENCIES, 75 cents (OE–20005–61).

PART 3: HIGHER EDUCATION, 75 cents (OE–50000–61).

PART 4: EDUCATION ASSOCIATIONS, 50 cents (OE–10001–61).

Elementary and Secondary Education

CAREERS IN ENGINEERING, MATHEMATICS, SCIENCE, AND RELATED FIELDS, A SELECTED BIBLIOGRAPHY, 25 cents (OE–26007).

EDUCATING THE MORE ABLE CHILDREN IN GRADES FOUR, FIVE, AND SIX, 35 cents (OE–35006).

ELEMENTARY SCHOOL ADMINISTRATION AND ORGANIZATION: A NATIONAL SURVEY OF PRACTICES AND POLICIES, 55 cents (OE–23006).

DRAMA WITH AND FOR CHILDREN, 30 cents (OE–33007).

FALL 1960, ENROLLMENT, TEACHERS, AND SCHOOLHOUSING IN FULL-TIME PUBLIC ELEMENTARY AND SECONDARY DAY SCHOOLS, 25 cents (OE–20007–60).

MODERN FOREIGN LANGUAGES: A COUNSELOR'S GUIDE, 30 cents (OE–27004).

MODERN FOREIGN LANGUAGES IN THE ELEMENTARY SCHOOL, TEACHING TECHNIQUES, 45 cents (OE–27007).

OFFERINGS AND ENROLLMENTS IN SCIENCE AND MATHEMATICS IN PUBLIC HIGH SCHOOLS, 1958, 35 cents (OE–29021).

RADIO AND TELEVISION: A SELECTED BIBLIOGRAPHY, 25 cents (OE–34004).

RESEARCH IN SCHOOL AND COLLEGE PERSONNEL SERVICES, SUMMARIES OF UNPUBLISHED STUDIES, SEPTEMBER 1956–SEPTEMBER 1958, 55 cents (OE–25007).

RURAL RENAISSANCE: REVITALIZING SMALL HIGH SCHOOLS, 25 cents (OE–36003).

SCIENCE AS A WAY OF LIFE, 15 cents (OE–29023).

STATE CURRICULUM GUIDES IN SCIENCE, MATHEMATICS, AND MODERN FOREIGN LANGUAGES: A BIBLIOGRAPHY, 25 cents (OE–33012).

Higher Education

ACADEMIC DEGREES: EARNED AND HONORARY DEGREES CONFERRED BY INSTITUTIONS OF HIGHER EDUCATION IN THE UNITED STATES, $1 (OE–54008).

ACCREDITED HIGHER INSTITUTIONS, 1960, 60 cents (OE–50012).

ADVANCE PLANNING TO MEET HIGHER EDUCATION NEEDS, RECENT STATE STUDIES, 1956–59, 30 cents (OE–53007).

THE COLLEGE PRESIDENCY, 1900–1960: AN ANNOTATED BIBLIOGRAPHY, 60 cents (OE–53008).

CRITERIA FOR THE ESTABLISHMENT OF 2-YEAR COLLEGES, 45 cents (OE–54006).

EARNED DEGREES CONFERRED, 1958–1959, BACHELOR'S AND HIGHER DEGREES, $1.50 (OE–54013).

GRADUATE GENERAL HUMANITIES PROGRAMS, 50 cents (OE–56001).

GRADUATE STUDY IN PUBLIC ADMINISTRATION, $1.25 (OE–56004).

NEW DIMENSIONS IN HIGHER EDUCATION:
No. 3: THE EXPERIMENTAL COLLEGE, 15 cents (OE–50010).
No. 4: IMPACT OF COLLEGE, 15 cents (50011).
No. 5: MANAGEMENT OF LEARNING, 20 cents (OE–50013).
No. 6: STUDY ABROAD, 15 cents (OE–50014).
No. 7: QUEST FOR QUALITY, 15 cents (OE–50016).
No. 8: ADVANCED STANDING, 15 cents (OE–54014).

OPENING (FALL) ENROLLMENT IN HIGHER EDUCATION, 1959: ANALYTIC REPORT, 35 cents (OE–54007).

OPENING (FALL) ENROLLMENT IN HIGHER EDUCATION, 1960: INSTITUTIONAL DATA, 30 cents (OE–54003–60).

SPECIAL REPORTS, CLEARINGHOUSE OF STUDIES ON HIGHER EDUCATION, APRIL 1960, 40 cents (OE–50009).

STUDENT FINANCIAL AID IN HIGHER EDUCATION: An Annotated Bibliography, 35 cents (OE–53006).

TRENDS IN ENGINEERING EDUCATION, 1949 TO 1959, 45 cents (OE–56003).

International Education

EDUCATIONAL TRENDS IN THE CARIBBEAN: EUROPEAN AFFILIATED AREAS, 60 cents (OE–14043).

EDUCATION FOR AFRICANS IN TANGANYIKA: A PRELIMINARY SURVEY, 40 cents (OE–14039).

NATIONAL HIGHER TECHNICAL EDUCATION IN INDONESIA: RECENT TRENDS, 45 cents (OE–14052).

PROGRESS OF PUBLIC EDUCATION IN THE UNITED STATES OF AMERICA, 1959–60, 30 cents (OE–10005).

SOVIET EDUCATION PROGRAMS, FOUNDATIONS, CURRICULUMS, AND TEACHER PREPARATION, $1.25 (OE–14037).

STUDIES IN COMPARATIVE EDUCATION, BIBLIOGRAPHY: 1959 PUBLICATIONS, 75 cents (OE–14004–59).

THE UNITED NATIONS AND RELATED ORGANIZATIONS: A BIBLIOGRAPHY, 15 cents (OE–14051).

Library Services

LIBRARY STATISTICS OF COLLEGES AND UNIVERSITIES, 1959–60, PART I: INSTITUTIONAL DATA, 50 cents (OE–15023).

STATE DEPARTMENT OF EDUCATION RESPONSIBILITIES FOR SCHOOL LIBRARIES, 35 cents (OE–15006).

STATE LIBRARY EXTENSION SERVICE: A SURVEY OF RESOURCES AND ACTIVITIES OF STATE LIBRARY ADMINISTRATIVE AGENCIES, 1955–56, 45 cents (OE–15009).

STATE PLANS UNDER THE LIBRARY SERVICES ACT, SUPPLEMENT 2: A PROGRESS REPORT, THE FIRST THREE FISCAL YEARS 1957–59, 60 cents (OE–15012).

STATE STANDARDS FOR PUBLIC LIBRARIES, 35 cents (OE–15010).

National Defense Education Act

MODERN FOREIGN LANGUAGE FELLOWSHIPS, 5 cents (OE–55014).

THE NATIONAL DEFENSE COUNSELING AND GUIDANCE TRAINING INSTITUTES PROGRAM: A REPORT OF THE FIRST 50 INSTITUTES, 35 cents (OE–25011).

THE NATIONAL DEFENSE STUDENT LOAN PROGRAM, 10 cents (OE–55009).

THE NATIONAL DEFENSE STUDENT LOAN PROGRAM: A 2-Year Report, 35 cents (OE–55019).

School Administration

APPROVAL AND ACCREDITATION OF PUBLIC SCHOOLS, RESPONSIBILITIES AND SERVICES OF STATE DEPARTMENTS OF EDUCATION, 40 cents (OE–20013).

SCHOOL PLANT MANAGEMENT: ADMINISTERING THE CUSTODIAL PROGRAM, 40 cents (OE–21005).

SCHOOL PLANT MANAGEMENT: ORGANIZING THE MAINTENANCE PROGRAM, 50 cents (OE–21002).

School Finance

ADMINISTRATION OF PUBLIC LAW 874 AND 815, TENTH ANNUAL REPORT OF THE COMMISSIONER OF EDUCATION, JUNE 30, 1960, $1 (OE–22003–60).

CURRENT EXPENDITURES PER PUPIL IN PUBLIC SCHOOL SYSTEMS, URBAN SCHOOL SYSTEMS, 1958–59, 50 cents (OE–22000–59).

Special Education

PROFESSIONAL PREPARATION FOR TEACHERS OF EXCEPTIONAL CHILDREN: AN OVERVIEW, 45 cents (Bulletin 1959, No. 6).

Vocational Education

BUILDINGS, EQUIPMENT, AND FACILITIES FOR VOCATIONAL AGRICULTURE EDUCATION, 45 cents (OE–81003).

CURRICULUM DEVELOPMENT IN PRACTICAL NURSE EDUCATION: A REPORT OF SEVEN INTRAREGIONAL CONFERENCES, April–June 1960, 60 cents (OE–85001).

DETERMINING REQUIREMENTS FOR DEVELOPMENT OF TECHNICAL ABILITIES THROUGH EXTENSION COURSES, 15 cents (OE–80010).

ELECTRICAL TECHNOLOGY, A SUGGESTED 2-YEAR POST HIGH SCHOOL CURRICULUM, No. 1, 75 cents (OE–80006).

ELECTRICAL TECHNOLOGY, A SUGGESTED 2-YEAR POST HIGH SCHOOL CURRICULUM, No. 2, 70 cents (OE–80009).

ORGANIZATION AND EFFECTIVE USE OF ADVISORY COMMITTEES, 30 cents (OE–84009).

PROMOTING PROGRAMS OF SUPERVISORY PERSONNEL DEVELOPMENT, 20 cents (OE–84007).

SUMMARIES OF STUDIES IN AGRICULTURAL EDUCATION, 25 cents (OE–81002–60).

TEACHER COMPETENCIES IN TRADE AND INDUSTRIAL EDUCATION, 30 cents (OE–84006).

Miscellaneous Publications

EDUCATION IN THE UNITED STATES OF AMERICA, 50 cents (OE–10006).

1937–1959 PUBLICATIONS, OFFICE OF EDUCATION, 50 cents (OE–11001).

PUBLICATIONS OF THE OFFICE OF EDUCATION, 1961, 25 cents (OE–11000A).

STRENGTHENING SCHOOLS FOR THE 60's, AMERICAN EDUCATION WEEK, NOVEMBER 7–12, 1960, 10 cents (OE–20019).

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